



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

on a large scale, and multiplying abundantly in the richer soil of the prairie, which held enough of sand for its nature, soon stocked the ground. Blooming profusely the showy flowers were doomed to be picked by the people living around, especially by the children. As more houses were built and population increased the case of the violets became more and more adverse. They were literally picked by the hundred by the eager visitors. This resulted in the extermination of the plant in a few years, and long before the ground was taken for the purpose of the park, about five years ago, not a bird-foot-violet could be found. Johnny jump-up, as the children called the plant, had succumbed to the predatory habits of the flower gatherers. Had it not been an exception to the usual custom of the genus in producing cleistogamous flowers, I should have expected a different result. This seems evident from the ability of the various species of blue violets, which abound in the woods and fields contiguous to the city, to hold their place notwithstanding they are picked annually in great numbers. The inconspicuous summer and autumn flowers, unknown to the vast majority of flower gatherers, and without attraction to such, provide the seeds for multiplying and perpetuating their kind. Hence I do not perceive any sensible diminution in their numbers when not subject to other causes than the gathering for bouquets.

CHICAGO, ILLINOIS

## REVIEWS

### Kükenthal's *Cyperaceae-Caricoideae* \*

The volume of the *Pflanzenreich* issued on May 18 last, contains the first attempt to present descriptions and keys of all species of *Carex* and related genera occurring throughout the world. The work — a bulky volume of over 800 pages — is the result of many years' labor by the learned author Georg Kükenthal. It contains a very great amount of material of interest and value to all students of the genera dealt with, and will prove of great aid to American students.

\* *Das Pflanzenreich* (38 Heft. IV. 20) *Cyperaceae-Caricoideae* by Georg Kükenthal. Pp. 384. f. 128. Wilhelm Engelmann, Leipzig, 1909. Mk. 41.20. (Issued May 18.)

The genera recognized are *Schoenoxiphium* with six species all natives of Africa; *Kobresia* with twenty-nine species mostly natives of Asia, two only reaching North America; *Uncinia* with twenty-four species, chiefly South American and Australasian, but with two or three species reaching tropical North America; and *Carex* with 798 species, some 282 of which are found in North America.

Of course, *Carex* is the genus with which North American botanists will be chiefly interested, and when one finds that fewer North American species are given than were recognized by Prof. Bailey more than twenty years ago, he becomes doubtful whether the learned author has adequately treated the genus as represented on this continent. This doubt is strongly increased when one notes the large number of North American species to which reference is made, but with which the author is not acquainted; and is certainly not lessened when one further notes the few specimens of many critical species seen by the author. The fact seems to be that the author's material of many North American species was hopelessly inadequate, and in many groups insufficient to enable him to properly understand them. In dealing with these groups it would naturally be expected that some slight attention would have been paid to the more recent treatments given them by American authors, but comparatively little has been. As a result we have such monstrosities as *Carex straminea* with nine recognized varieties and seven forms; almost all the varieties being more well-marked and more distinct from one another than are *Carex leporina* L. and the plant treated as *Carex petasata* Dew., which are recognized as distinct species! Similar but less pronounced unnatural arrangements are found in dealing with other species.

The main division, too, of the species is archaic in the extreme. Who would have believed it possible at the present time for an expert on the genus to divide it into groups depending on whether there were one or many spikes. Yet this is exactly the basis of the main division of the genus, and as a result we have species like *Carex exilis* Dewey, *Carex Fraseri* Andr., *Carex Geyeri* Boott, and many others torn from their

natural relationships and put in as part of a mixture labeled "Primo-Carex Kükenthal." Of course it will be recognized that there are a good number of species with one spike which are very closely related, but such a group as is here created is as unnatural as it is needless.

The author, too, is bold indeed in at times reducing critical species to varieties of some other species more or less closely related, when he apparently has had no specimens of the species so treated at hand; nor has care always been taken to see that keys and group descriptions accord with description of species in the group. For example, *Carex subulata* Michx. is put in a group characterized by an enlarged style-base, but that species itself is described as without such a base. Again there are numerous species which it would be hard to key into the groups recognized by the use of the keys to the groups.

The strong and valuable features of the work to the American botanist are the manner in which the value of characters taken from the rootstock and lower part of the culm and from the style are emphasized and made use of. These are characters which have been too long neglected in this country, and if noticed will much simplify the study of some of the more difficult groups. The vast amount of synonymy collected will prove of great assistance, although it is very evident that it is neither entirely exhaustive nor altogether properly disposed of. The key characters in the smaller groups are generally arranged with care and differences between closely related species are sharply brought out. The descriptions too as a rule are full, although many more measurements should have been given. There are numerous excellent plates scattered through the volume and the printer's part of the work is thoroughly well done.

It may then in closing be said that as a first attempt at one of the most difficult tasks to which a botanist could apply himself, the work is worthy of high commendation indeed, but as far as the American species are concerned the author has unfortunately been much handicapped by lack of material, and has not made as much use as he might of American literature.

KENNETH K. MACKENZIE

## PROCEEDINGS OF THE CLUB

OCTOBER 12, 1909

The meeting was called to order at the American Museum of Natural History, with Vice-president Barnhart in the chair. There were 22 persons present. Resignations were accepted from Miss Mary H. Price and Miss Mabel Denton. Mr. Leon L. Cypress was elected a member of the Club.

The program of the evening consisted of an illustrated lecture by Dr. John Hendley Barnhart. The paper has been published with slight modifications in the *Journal of the New York Botanical Garden* for August, 1909, and will appear in the next number of *TORREYA*.

PERCY WILSON,  
*Secretary*

## OF INTEREST TO TEACHERS

## LIVERWORT TYPES FOR ELEMENTARY CLASSES

BY W. C. COKER

In the liverworts we find the first conspicuous appearance of alternation of generations in plants, and it is here that it behooves the teacher to bring his pupils to a clear understanding of this fundamental morphological fact. All teachers of experience know that here we arrive at the *pons asinorum* of botany, but we should see to it that no student is kept on the wrong side by any unnecessary narrowing of the way.

In looking for a type, then, to use in our elementary classes it seems to me of the utmost importance that one should be selected that shows this alternation of generation in the clearest and simplest manner — as little obscured as possible by complex morphology. Now, if we examine the text books that are at present being used or that have been used for the last twenty years we find that the liverwort type is *Marchantia*, as complex and difficult a plant as the group affords, and one as little suited for this use as could well be found. The complex thallus, the stalked and still more complex archegoniophores and antheridio-